



Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife

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Glaucous Sedge

Carex glaucoidea Tuckerman ex Olney

(*Carex flaccosperma* var. *glaucoidea* (Tuckerman ex Olney) Kukenth)

State Status: **Endangered**

Federal Status: None

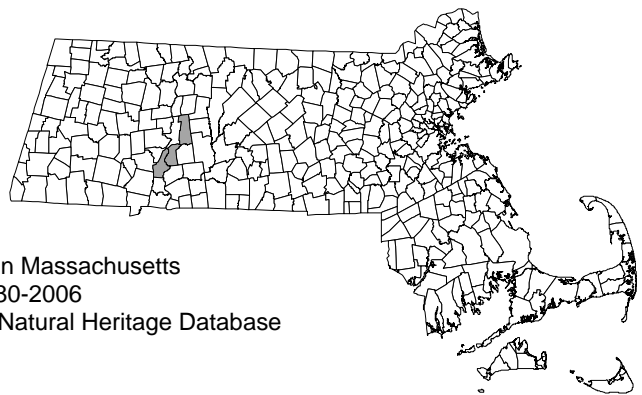
General Description: Glaucous sedge, a member of the Sedge family (Cyperaceae), is a perennial, herbaceous, grass-like plant of rich, oak-hickory or hickory-hophornbeam woodlands. It is a pale plant that grows in loose clumps of thick, leathery basal leaves with flowering stems up to two feet (6 dm) tall. Edward Tuckerman, of Amherst College, first described this taxon in the 1860's as a variety of flaccid sedge (*Carex flaccosperma*). The common name and specific epithet are derived from the glaucous, or whitish, cast of its leaves.

Aids to identification: To correctly identify the glaucous sedge and other members of the genus *Carex*, a technical manual should be consulted. Species in this genus have tiny, wind-pollinated flowers that are borne in spikes. Each flower is unisexual, and is closely subtended by small, flat scales that largely conceal the flowers. The staminate (*i.e.*, pollen bearing) flowers are subtended by a single scale ("staminate scales"). The pistillate (*i.e.*, ovule bearing) flowers are subtended by two scales, an outer flat scale ("pistillate scale") and an inner, sac-like scale, called a "perigynium," that encloses the flower, and later, the fruit.

Glaucous sedge belongs to a group of *Carex* (section *Grisaea*), which all have impressed (sunken) perigynia veins. Its leaves are glaucous, and relatively wide (0.2 - 0.4 in. or 0.4-1 cm). Two characters of the perigynia, the absence of slender prolonged tips known as "beaks," and the presence of impressed veins, help distinguish this sedge from other glaucous-leaved sedges. Each flowering culm produces a single, terminal staminate spike, which is stalkless or short-stalked, above two to four pistillate spikes. The bracts (leaf-like structures below the spikes) are long, extending beyond the tops of the spikes.



MacKenzie., K.K. *North American Cariceae*.
NY Botanical Garden. 1940.



Distribution in Massachusetts

1980-2006

Based on Records in Natural Heritage Database

Similar species: There are several superficially similar species with relatively wide, glaucous to blue-green leaves found in rich woods, such as white bear sedge (*C. albursina*), broad-leaved woodland sedge (*C. platyphylla*), concealed sedge (*C. abscondita*), spreading woodland sedge (*C. laxiculmis*), and loose-flowered woodland sedge (*C. laxiflora*). The glaucescent sedge may be distinguished from these sedges using the following combination of characters: leaves 1 cm or less wide (to distinguish from the broader-leaved *C. albursina* and *C. platyphylla*); flowering culm length similar to leaf length (eliminates *C. abscondita*); and impressed veins on densely-clustered perigynia (rules out *C. laxiculmis* and *C. laxiflora*).

Habitat: Glaucous sedge is a plant of rich, seasonally mesic to dry woodlands and associated clearings, usually over basalt traprock ridges in Massachusetts. It colonizes recently disturbed, open to semi-open sites and is seldom seen in deep woods where there is heavy shade or leaf litter. Natural habitat is exposed soil or moist circumneutral rock in forests adjacent to ephemeral mountain creeks. Secondary roads, trails and other disturbances in the vicinity of natural habitat can result in dense colonies becoming established. Among the plant species associated with glaucescent sedge are woodland sunflower (*Helianthus divaricatus*), white wood aster (*Eurybia divaricata*), deerberry (*Vaccinium stamineum*), various sedges (*Carex* spp.), goldenrods (*Solidago* spp.), hickories (*Carya* spp.), and oaks (*Quercus* spp.)—including the northern red oak (*Quercus rubra*) and white oak (*Q. alba*), and hophornbeam (*Ostrya virginiana*). Violet wood-sorrel (*Oxalis violacea*), a "Threatened" Massachusetts plant, has been found growing with glaucescent sedge.

Range: The documented range of glaucescent sedge extends from New Hampshire, Massachusetts and southern Ontario to southern Indiana and Missouri, and south to North Carolina and Arkansas.

Population status in Massachusetts: Glaucous sedge is listed under the Massachusetts Endangered Species Act as "Endangered". All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. The plant is currently restricted to the Metacomet Range in Massachusetts (but was historically collected from the Blue Hills as well) where mineral-rich, neutral soils are found. Glaucous sedge is also considered to be rare in New York and was present historically in New Hampshire.

Management recommendations: The habitat preference of glaucescent sedge for areas along trails or roadbeds suggests that, at least in Massachusetts, canopy openings and minor soil disturbances benefit the plant. However, disturbances do make it much easier for aggressive exotic plants to invade any area and possibly out-compete native species. Weedy alien species have been noted at one of the current stations of glaucescent sedge.

Mature Perigynia Present:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Updated: October 2006